

REQUEST FOR PROPOSAL (RFP)

Issue Date: November 16, 2001 RFP# 02-03

Title: Virginia Base Mapping Program

Issuing Agency: Department of Information Technology
On behalf of the
Virginia Geographic Information Network (VGIN) a Division of the
Department of Technology Planning
110 South 7th Street, Third Floor
Richmond, Virginia 23219

Sealed Proposals Will Be Received Until 2:00 PM December 10, 2001 For Furnishing The Services Described Herein.

All Inquiries For Information Should Be Directed To: Timothy W. Moore at 804-371-5972 or by email to tmoore@dit.state.va.us.

IF PROPOSALS ARE MAILED, SEND DIRECTLY TO ISSUING AGENCY SHOWN ABOVE. IF PROPOSALS ARE HAND DELIVERED, THEN DELIVER TO:

Timothy Moore, Department of Information Technology, 110 South 7th Street, Third Floor, Richmond, Virginia 23219

In Compliance With This Request For Proposal And To All The Conditions Imposed Therein And Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation.

Name And Address Of Firm:

_____ Date: _____

_____ By: _____
(Signature In Ink)

_____ Name: _____
(Please Print)

_____ Zip Code: _____ Title: _____

FEI/FIN NO. _____ Phone: _____

E-mail: _____ Fax: _____

MANDATORY PRE-PROPOSAL CONFERENCE: A mandatory pre-proposal conference will be held on November 27, 2001 at 10:00 AM in the DIT Executive Conference Room, Third Floor, 110 South Seventh Street, Richmond, Virginia. Reference: Section VII herein.

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- I. **PURPOSE:** The Commonwealth of Virginia through the Virginia Geographic Information Network (herein referred to as VGIN) is soliciting sealed proposals to establish a contract through negotiations with a qualified contractor to develop consistent statewide digital orthoimagery at resolutions of 1 foot in urban/suburban areas and 2 foot resolution in rural areas and with a 6 inch resolution in some limited urban areas. The contract for statewide digital imagery to support the Virginia Base Mapping Program (VBMP) will be awarded for aerial photography acquisition in the Spring of 2002 with leaf off conditions and subsequent delivery of orthophotography within 12 months.
- II. **BACKGROUND:** The Virginia Geographic Information Network (VGIN) is charged with developing a statewide base map and managing an ongoing program for the maintenance of this resource for State and local governments. Information on VGIN can be found at <http://www.vgin.state.va.us>.

On October 10, 2001 the Wireless E-911 Services Board voted to become a partner in the Virginia Base Mapping Program (VBMP) and to fully fund the acquisition and delivery of high-resolution digital orthophotography for the entire land base of Virginia beginning in 2002.

The goal of the Virginia Base Mapping Program is to develop a digital orthoimagery base, which will act as a reference network and base for additional spatial data development by local communities for use in geographic Information Systems (GIS) development. The digital orthoimagery performance criteria indicated in Section III. B. have been established to provide for the development of quality digital orthoimagery. The performance criteria are also designed to provide the data resources to support the compilation of planimetric feature and contour data through standard photogrammetric processes, although these elements are not within the scope of this request for proposals.

It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in State procurement activities. The Commonwealth encourages contractors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, and contractual opportunities. Submission of a report for utilizing the goods and services of such businesses and plans for involvement on this contract is required. By submitting a proposal, Offerors certify that all information provided in response to this RFP is true and accurate.

III. **SCOPE OF WORK:**

The contractor shall furnish all labor, resources and materials required to develop and deliver digital orthoimagery for the Commonwealth at resolutions of either 2 foot (target map scale 1:4,800), 1 foot (target map scale of 1:2,400) or 6 inch

(target map scale of 1:1,200) as indicated on the map (Attachment E) to support the Virginia Base Mapping Program (VBMP).

- A. Project Extents:** The project encompasses almost the entire land area of the Commonwealth of Virginia. The State boundary is to be buffered by 1000'. Coastal areas of the State bordering the Atlantic Ocean or the Chesapeake Bay shall be buffered by 1000' or the extent of man-made features extending from shore.

The 1-foot resolution digital orthoimagery is to be developed over the majority of urban/suburban areas of the Commonwealth covering approximately 7,167 square miles and the 2-foot resolution digital orthoimagery is to be developed over the rural areas of the Commonwealth covering approximately 31,923 square miles as defined by VGIN. The 6-inch resolution digital orthoimagery will be developed in limited urban areas currently estimated to cover less than 1000 square miles. The land area covering several counties or cities will not be included in the program (See Attachment E).

B. Performance Criteria/ Product Specifications

The performance criteria / product specifications listed below, define the quality of the product that is required for the VBMP and its capability to support additional (post project) data development by 3rd party vendors. The digital ortho product is defined here, in terms of traditional photogrammetric processing language and specifications. However, ultimately, the quality of the product, not the processing method is the VBMP focus. Offerors are encouraged to submit innovative proposals using the latest proven technologies with which they are experienced. Variations in individual elements of the performance criteria will be accepted, however, proposals, which include alternative methodologies must conclusively demonstrate to VGIN that the resulting product will meet or exceed the product quality defined by VGIN using the performance criteria / product specifications listed in this section. All proposals must clearly indicate how each performance criteria / product specification is met or compensated for under alternative methodologies.

All digital orthoimagery and development processes for the Virginia Base Mapping Program (VBMP) shall conform to the ASPRS Draft Aerial Photography Standards (1995) and Model Virginia Map Accuracy Standards (1992), which generally follow the ASPRS Accuracy Standard for Large-Scale Mapping (1990) for all imagery at the scales indicated except for the changes specified in this document. Accuracy will be reported according to NSSDA Geospatial Accuracy Standards part 3.

1. Image Collection Requirements

The imagery collected for this project shall support the development of digital orthoimagery, which meets or exceeds the accuracy requirement for Class 1

mapping standards in conformance with Virginia Map Accuracy Standards (1992) and ASPRS (1990) Accuracy Standards for Large-scale Maps, **Class 1**.

- a. **Imagery Type:** True Color (24 bit)
- b. **Temporal Requirements:** All imagery to be collected in the Spring of 2002 flying season with leaf-off conditions. The sun angle shall be 30 degrees or greater and no clouds, snow or other ground obscuring conditions shall be present.

c. **Image Quality and Tile Size by Resolution/scale**

Resolution of Final Digital Orthoimage	Target Map Scale	Max. Flying Height	Digital Ortho Tile Size
2 foot GSD*	1:4,800 (1"=400')	14,400 Feet	10,000' x 10,000'
1 foot GSD*	1:2,400 (1"=200')	7,200 Feet	5,000' x 5,000'
6 inch GSD*	1:1,200 (1"=100')	3,600 Feet	2,500' x 2,500'

* Ground Sampling Distance

d. **Extent and distribution of imagery resolution:**

The estimated distribution and geographic extent for 1 foot, 2 foot and 6 inch resolution digital Orthoimagery **required for this RFP** are indicated on the maps in **Attachment E**. These maps and the data used to create them are available for download electronically on the VGIN web site (www.vgin.state.va.us).

Counties and Cities have, through VGIN, the option to change current resolution specifications for areas within their jurisdiction from 2 foot to 1 foot and from 1 foot to 6 inches. The final extents and distribution of each imagery resolution for this project will be fixed during contract negotiations.

One resolution of imagery will be developed for any given area as indicated on the maps in Attachment E., with overlap of imagery between areas of different resolutions (scale) minimized to the extent practical. VGIN's calculated estimate of tiles per image resolution is as follows:

Resolution	Extent in # of Tiles
2 foot resolution – 10,000' x 10,000' tiles	10,536
1 foot resolution – 5,000' x 5,000' tiles	10,129
0.5 foot resolution – 2,500' x 2,500' tiles	4,692

The tile estimates in the box above were calculated using the maps and data in Attachment E. The initial extent and distribution of 1-foot resolution coverage was determined by population density at the Block Group level using 2000 Census data. The tile totals for each resolution were calculated by summing all 10,000' x 10,000' foot tiles with any 2 foot resolution, summing all 5,000' x 5,000' tiles with any 1 foot resolution area, and summing any

5,000' x 5,000' tiles where the area of 0.5 resolution would exceed 50% (multiplied by 4 for nested 2,500' tiles). These totals represent a conservative estimate of the numbers of tiles for each resolution with considerable overlap of tiles resulting in a total area that exceeds the actual land area of Virginia. The exact extents and distribution of tiles for each resolution of imagery, including optional 6-inch resolution imagery, for the project, will be finalized by VGIN during contract negotiations.

Each counted tile shall be of a single consistent resolution. In some cases there will be duplication of areas by tiles due to overlap between areas of different resolution. Overlap is required along the line separating the North and South SPCS zones. If a full grid tile provides less than 1,000 feet of orthoimagery overlap between the two zones, an additional full grid tile or tiles shall be processed to provide a minimum of 1,000 feet of overlap on each side of the State Plane boundary.

The estimated extent of any area within Virginia, not included in the project, is indicated on the maps in Attachment E.

e. Orientation and Units

Imagery for the project will be referenced to the NAD 83/93 (HARN) horizontal datum and NAVD 88 vertical datum with NGS Geoid 99 model used in derivation of orthometric heights. Imagery shall be oriented to the Virginia State Plane North and South zones using US Survey Feet.

f. Camera and Focal Length: 6-inch focal length with Forward Motion Compensation (FMC).

g. Overlap: Photography shall be vertical with a minimum forward lap of 60% and side laps of 30%.

h. Airborne Global Positioning System (AGPS) flight navigation system shall be used to accomplish pinpoint color aerial photography on predetermined camera exposure stations resulting in a regular spatial grid format. Flight directions shall preferably be North/South and minimum cross flights (two for a rectangular block) shall be used.

i. Alternate Sensor Considerations: Only digital sensors that are proven to be able to provide imagery that meet the performance criteria of this section will be considered. Regardless of the sensor technology used, the quality of the final product, as specified herein, must be achieved.

2. Project Control and Orientation

- a. **Project Control:** A minimum of ground control shall be used for the combined DAT solution. For safety and reliability, a minimum of a pair of control shall be used which shall be located at the corners of each block solution, although one point should normally be sufficient. In case of coastal situations and where there are large bodies of water (lakes and rivers) that define the block boundaries, some additional control shall be located along the coast to stabilize the block geometry.

Ground control used shall be of consistent homogenous density and accuracy to support development of the product at the scales indicated. GPS techniques shall be used to establish horizontal as well as vertical ground control as far as possible. The offeror shall describe in detail how horizontal and vertical ground control will be established, and how the imagery will be referenced to both horizontal and vertical ground control. Ground check control will be required minimally for verification of DAT and orthophoto products, regardless of the orientation sensors on board of the aerial platform used for capture of the digital imagery. All ground control for the project must be tied to the Virginia High Accuracy Reference Network (Virginia HARN).

The Contractor shall submit a control plan prior to fieldwork showing the location of stations to be observed and indicating the baselines to be observed during each session.

- b. **Ground Control Requirements:** All new ground control used in the project shall be based upon the State of Virginia HARN to ensure homogenous consistency and standards, and must be established by a professional licensed to practice land surveying in the Commonwealth. All new control established for use in the project shall be secured in accordance with the National Geodetic Survey (NGS) standards and all coordinates and data should be of acceptable quality to meet 2nd Order Class I specifications. The horizontal control will be in NAD 83/93 (HARN) reference datum. The vertical control will be NAVD 88 reference datum maintained by the NGS in US Survey Feet.

The accuracy of existing ground reference stations for use with Airborne GPS shall be within 2-centimeter or better as defined in the FGDC-STD-007.2-1998, Geospatial Positioning Accuracy Standards Part 2: Standards for Geodetic Networks. Existing control from the National Spatial Reference System (NSRS) database, which meets the FGCC document - Geometric Geodetic Accuracy Standards Specifications For Using GPS Relative Positioning Techniques, reprinted 1989, can be used if it is of second order, class I.

New established ground control used for geo-referencing the combined DAT solution shall be GPS derived of order 2-I (second order, class 1). Use of 1st order control and above shall be preferred.

The vertical control shall, at a minimum, meet the third order vertical accuracy specifications in NAVD 88 datum. National Oceanic and Atmospheric Administration (NOAA) Technical Memorandum NOS-NGS-58 Guidelines for GPS Derived Ellipsoid Heights shall be followed for new vertical control. The mapping coordinate system shall be the Virginia State Plane Coordinate System in U.S. Survey Feet.

All newly acquired control that is monumented shall be submitted in NGS blue format for inclusion in the national geodetic reference network.

- c. **Airborne GPS:** Camera exposure station coordinates shall be determined from AGPS techniques. Two Global Positioning System (GPS) ground reference stations shall be preferred. At least one of these stations shall be in the project Digital Aerial Triangulation (DAT) block area. Offerors shall propose their approach for AGPS solution. Root Mean Square Error (RMSE) of GPS coordinates at the exposure stations shall be less than 10 cm. National Geodetic Survey (NGS) Continuous Operation Reference Stations (CORS) cover most of Virginia.
3. **Processing:** All processing is to be performed in the softcopy environment.
- a. **Scanning:** Where a film-based camera is proposed, image scanning shall be performed directly from the color aerial film. The same imagery can be used both for performing DAT as well as processing for Digital Orthophotography (DO). Scan resolution shall not exceed 20 microns for DAT solution.
 - b. **Analytical Aerial Triangulation:** Combined AGPS supported Automatic DAT with all sensors data shall be carried out for photo control point densification using Least Square Matching (LSM) techniques at a minimum. The DAT solution can be performed with black and white image. Large blocks shall be formed as far as possible. Main consideration for block size shall be the efficiency of data processing and management. The DAT accuracy measures shall be:
 - (1) Accuracy of image observations $\sigma_o \leq 5 \mu m$
 - (2) RMSE in x and y at check points: μ_x and $\mu_y \cong 2.0$ to $2.5 \sigma_o * s$, where s is photo scale R F.
 - (3) RMSE in height at check points: $\mu_z \cong 0.1'$ per 1000' of flying height is expected
 - (4) μ_x and $\mu_y < 5 \mu m$ as RMS residuals at the image points

The DAT solution should be able to output theoretical accuracy of the block adjustment.

- c. **Radiometric and Geometric Quality:** The digital orthoimagery within each state plane coordinate zone shall be seamless. The imagery will be geometrically and radiometrically correct and match seamlessly without noticeable differences. Ortho rectification and mosaicking shall result in producing ortho imagery having sharp uniform balanced color contrast, scratch and dust free consistently across the database.

Radiometry characteristics shall be determined jointly through consultations between the Contractor and VGIN by processing small prototype signature areas. These sample areas shall be submitted to VGIN for review. Once the optimal characteristics have been approved by VGIN, all other images shall have their contrast and brightness values adjusted to that of the prototype signatures.

The goal is to produce digital imagery of consistent tone and contrast throughout the state, as well as within single images.

The contractor shall ensure imagery is quality controlled at all stages and be free from distortions at bridges/interchanges, edge matched, free from double image 'ghosting' effect at the mosaicking edges, and sharp without blurring effect.

- d. **Photo Tiles and processing:** Edge displacement shall be corrected in all cases. The deliverable digital ortho files should match at the **neat line** with no overlap.
 - e. **Onboard Sensors:** The use of a digital camera, Inertial Measurement Unit (IMU) and LIDAR is optional. Regardless of the methods or technologies used, the quality of the final product must be achieved.
4. **DTM:** The Digital Terrain Model (DTM) developed for this project shall only be of the quality required to support development of digital orthophotography at the standards specified. A DTM developed to the rigors to support contour mapping is not within the scope of this program.
- a. The DTMs shall be compiled over-edge at least 1 inch at map scale beyond the neat boundary of the map sheet to eliminate edge effects.
 - b. **DTM Quality:** In order to avoid unnatural visual appearance of bridge decks in the digital orthoimagery, edge of pavements shall be included as break lines with the elevation values associated with the bridge decks included in the DTM.

- c. Contractor shall indicate the spatial accuracy quality of the generated DTM.

IV. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS:

A. GENERAL INSTRUCTIONS:

1. RFP Response: In order to be considered for selection, offerors must submit a complete response to this RFP. One (1) original and six (6) copies of each proposal must be submitted to the issuing agency. No other distribution of the proposal shall be made by the offeror.
2. Proposal Preparation:
 - a. Proposals shall be signed by an authorized representative of the offeror. All information requested should be submitted. Failure to submit all information requested may result in the purchasing agency requiring prompt submission of missing information and/or giving a lowered evaluation of the proposal. Proposals which are substantially incomplete or lack key information may be rejected by the purchasing agency. Mandatory requirements are those required by law or regulation or are such that they cannot be waived and are not subject to negotiation.
 - b. All information requested by this RFP on the ownership, utilization and planned involvement of small businesses, women-owned businesses and minority-owned businesses must be submitted. If an Offeror fails to submit all information requested, the purchasing agency may require prompt submission of missing information after receipt of Offeror proposals.
 - c. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.
 - d. Proposals should be organized in the order in which the requirements are presented in the RFP. All pages of the proposal should be numbered. Each paragraph in the proposal should reference the paragraph number of the corresponding section of the RFP. It is also helpful to cite the paragraph number, subletter, and repeat the text of the requirement as it appears in the RFP. If a response covers more than one page, the paragraph number and subletter should be repeated at the top of the next page. The proposal should contain a table of contents which cross references the RFP requirements. Information which the offeror desires to present that does not fall within any of the requirements of the RFP should be inserted at an

appropriate place or be attached at the end of the proposal and designated as additional material. Proposals that are not organized in this manner risk elimination from consideration if the evaluators are unable to find where the RFP requirements are specifically addressed.

- e. Each copy of the proposal should be bound or contained in a single volume where practical. All documentation submitted with the proposal should be contained in that single volume.

Cost Proposals: All cost information must be signed, sealed and provided in a separate envelope. No cost information will be included in the technical proposal. The offeror's cost proposal must include all costs associated with the provisions requested in this RFP. The offeror must be willing and able to successfully deliver all products and services proposed and to complete the project on a firm fixed-price basis. If the offeror desires to propose additional products and/or services, which it believes, would benefit VGIN (but are not required to successfully complete the project as proposed), such items may be included, but must be clearly identified as optional. See Attachment D, which is the Proposal Cost Forms.

- f. Ownership of all data, materials, and documentation originated and prepared for the State pursuant to the RFP shall belong exclusively to the State and be subject to public inspection in accordance with the *Virginia Freedom of Information Act*. Trade secrets or proprietary information submitted by an offeror shall not be subject to public disclosure under the *Virginia Freedom of Information Act*; however, the offeror must invoke the protections of § 11-52D of the *Code of Virginia*, in writing, either before or at the time the data or other material is submitted. The written notice must specifically identify the data or materials to be protected and state the reasons why protection is necessary. The proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. The classification of an entire proposal document, line item prices, and/or total proposal prices as proprietary or trade secrets is not acceptable and may result in rejection of the proposal.

- 3. Oral Presentation: Offerors who submit a proposal in response to this RFP may be required to give an oral presentation of their proposal to the agency. This provides an opportunity for the offeror to clarify or elaborate on the proposal. This is a fact finding and explanation session only and does not include negotiation. The issuing agency will schedule

the time and location of these presentations. Oral presentations are an option of the purchasing agency and may or may not be conducted.

B. SPECIFIC PROPOSAL INSTRUCTIONS: Proposals should be as thorough and detailed as possible so that VGIN may properly evaluate your capabilities to provide the required services. Offerors are required to submit the following items as a complete proposal: Return the RFP cover sheet and all addenda acknowledgments, if any, signed and filled out as required.

1. Offeror Data Sheet, included as Attachment B to the RFP, and other specific items or data requested in the RFP.
2. A written narrative statement to include:
 - a. Experience in providing the services described herein.
 - b. Names, qualifications and experience of personnel to be assigned to the project.
 - c. Resumes of staff to be assigned to the project.
3. Specific plans for providing the proposed services including:
 - a. Proposals should address the following services, which are generally but not necessarily exactly descriptive of those that may be required to complete this project.
 - i. Conduct coordination meetings
 - ii. Development of a project schedule
 - iii. Establish Project Control
 - iv. Capture Aerial imagery
 - v. Convert digital imagery
 - vi. Orient imagery to ground control
 - vii. Generate Digital Terrain Model (DTM)
 - viii. Generate digital orthoimagery
 - ix. Radiometrically balance, edge-match and smooth orthoimages
 - x. Tile and compress orthoimages
 - xi. Quality Assurance / Quality Control of project deliverables
 - xii. Process and deliver final deliverables
 - b. Offerors shall submit in the Offeror's proposal a detailed project plan for addressing all of the steps in the above process while addressing each of the product specifications indicated in Section III.
 - c. The Project Plan of the Offeror shall indicate how many aircraft will be used for the collection of the aerial imagery.

- d. Offeror shall present a plan for re-visit of areas in the event of image rejection during the Quality Control (QC) process or where imagery could not be collected in the event that weather or ground cover conditions preclude collection.
4. Compensation – Attachment D contains Proposal Costs Forms. All offerors must complete these forms.
5. Small, Women and Minority-Owned Business Participation: The Offeror must submit the following three sets of data for small business, women-owned and minority-owned businesses: 1) ownership, 2) utilization of small, women-owned and minority-owned businesses for the most recent 12 months, and 3) planned involvement of small businesses, women-owned and minority-owned businesses on this procurement. Instructions for providing the required information, including definitions, are included as Attachment A to this RFP. Forms to assist the Offeror in providing the required information are also included as Attachment A.

V. **EVALUATION AND AWARD CRITERIA**

- A. **EVALUATION CRITERIA:** Proposals shall be evaluated by VGIN using the following criteria:

	<u>POINT VALUE</u>
1. Technical Evaluation	51
<ul style="list-style-type: none"> • Offeror's qualifications and relevant experience • References confirming past success in similar projects. • Use of appropriate technology (hardware, software, techniques) • Quality control plan • Methods, work flow and data proposed are appropriate and technically sound to produce the required deliverables 	
2. Cost Evaluation	30
3. Management Evaluation	10
The management evaluation will include assessment of the overall project plan to employ a sound project management strategy and allocate sufficient resources to address all aspects the Scope of Contract Services.	
4. Small Business, Women-Owned Business, and Minority-Owned Business Participation:	
a. Past and current participation of small businesses for the most recent 12 months.	1
b. Planned involvement of small businesses in the performance of this contract.	2
c. Past and current participation of women-owned businesses	1

	for the most recent 12 months.	
d.	Planned involvement of women-owned businesses in the performance of this contract.	2
e.	Past and current participation of minority-owned businesses for the most recent 12 months.	1
f.	Planned involvement of minority-owned businesses in the Performance of this contract.	<u>2</u>
Total		100

- C. **AWARD:** Selection shall be made of two or more offerors deemed to be fully qualified and best suited among those submitting proposals on the basis of the evaluation factors included in the Request for Proposals, including price, if so stated in the Request for Proposals. Negotiations shall be conducted with the offerors so selected. Price shall be considered, but need not be the sole determining factor. After negotiations have been conducted with each offeror so selected, the agency shall select the offeror which, in its opinion, has made the best proposal, and shall award the contract to that offeror. The Commonwealth may cancel this Request for Proposals or reject proposals at any time prior to an award, and is not required to furnish a statement of the reasons why a particular proposal was not deemed to be the most advantageous (*Code of Virginia*, § 11-65D). Should the Commonwealth determine in writing and in its sole discretion that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation and the contractor's proposal as negotiated.

VI. REPORTING AND DELIVERY INSTRUCTIONS:

A. Project Management Requirements

The offeror shall propose a management plan for the project, which clearly establishes lines of communication, authority and responsibility with regards to management of the project. The plan should be developed to demonstrate efficient and effective communication on all aspects of the project and to minimize the administrative overhead of VGIN. The management plan shall include at a minimum the following items:

1. On Call Point of Contact

An individual or set of individuals shall be identified by Contractor and contact information provided that will allow VGIN to contact the Contractors "Point of Contact" anytime during regular business hours, Eastern Standard Time.

2. Project Initiation Meeting and Project Plan

The Contractor will meet with VGIN within one (1) week subsequent to Contract award to review the project plan and deliverables for the project. The contractor will present the project schedule and project plan for the project for review and final approval by VGIN at the project initiation meeting. The project plan will include a timeline for: (1) a flight plan and (2) control survey plan.

3. Post-Flying Evaluation Meeting

The Contractor shall meet with the VGIN immediately following the Spring flying season, but no later than May 1st. The purpose of this meeting is to evaluate the success of the spring flight.

4. Status Meetings

Point of contact and appropriate contractor staff shall participate in meetings in Richmond in July 2002, October 2002, and January 2003 unless deemed unnecessary by VGIN.

5. Status Reports

The Contractor shall provide weekly reports to VGIN by email, updating and documenting the status of the project in relation to the project schedule and identifying any issues or concerns.

- B. Data Deliverables:** Completion of final processing and delivery of the final product is desired as soon as possible, but all final products from successfully collected aerial photography shall be delivered and accepted by VGIN within 12 months of the start date of the Contract.

The File naming conventions will be provided by VGIN at the time of the project initiation meeting.

In addition to the Digital Orthoimagery files, delivery of all data products produced in the digital ortho development process required to facilitate the efficient development of planimetric or contour features by a 3rd party contractor is required. This will include but may not be limited to all film, raw digital imagery files along with the DAT solution and set-up and orientation information for the stereo models, ground control, flight lines and control plans, photo indexes, sensors and the DTM data used for rectification. Additionally the flight plan, control report and Aerial Triangulation report (if required) shall be delivered. File formats for digital products will be worked out between VGIN and the contractor.

- a. **Project Control:** A control report shall be submitted documenting all control used for orienting the captured imagery for the project.
 - a. All **permanent new** ground control for the project shall be documented in the NGS Blue Book format. A hardcopy and electronic copy control report will be required.
 - b. A **network diagram** shall be provided showing all points and indicating which independent vectors were observed. A schedule (in table form) showing the dates, occupation times, and sessions for each station in the survey shall be provided.
 - c. **Temporary** ground control for the project shall be documented with all GPS Observation Data in a non-proprietary format agreed upon between the contractor and VGIN written to CD-ROM.
 - d. An observation form for each temporary ground control station occupation shall be provided that shall include at least the following information:
 - i. Project Name
 - ii. Operator's Name
 - iii. Date
 - iv. Julian Day
 - v. Receiver Serial #
 - vi. Antenna Serial #
 - vii. Brand and name of receiver / antenna
 - viii. Station Name
 - ix. Session #
 - x. Antenna H.I. and indication for type of measurement
 - xi. File Name
 - xii. Actual start time and actual end time for the occupation
 - xiii. Visibility skyplots for each station observed in the network
 - xiv. Printed graphical plot indicating the number of satellites above 15 degrees and the PDOP for each session of field observation
 - xv. Data showing the quality of processed vectors
 - xvi. Results of a minimally constrained least squares network adjustment report including (@ 95% confidence region):
 - xvii. Statistical results clearly showing which control point is held fixed, and clearly indicating standard errors applied and weighting scheme used
 - xviii. Station coordinate standard deviations (x, y, z)
 - xix. Station coordinate error ellipses (semi-major axis, semi-minor axis, azimuth of semi-major axis, height)
 - xx. Results of the fully constrained adjustment, clearly showing all values held fixed, and clearly indicating standard errors applied and weighting scheme used.

- xxi. Tie diagrams and "to reach" descriptions for each new station
 - xxii. Digital ASCII file with minimally constrained coordinate adjustments.
- e. All horizontal and vertical control points used for orienting the captured imagery shall be submitted as ESRI ArcView point feature shape files. A separate set of shape files shall be submitted for the State Plane Coordinate System (SPCS) North and South Zone versions of the horizontal control points, with each point attributed according to this section.
2. **Raw Image Files:** Delivery of original film and all raw image files used in the production of the digital orthoimagery product shall be delivered in an untiled TIFF format.
 3. **Aerial Triangulation:** All information related to the image orientation required to facilitate the efficient use of the imagery for additional data development by a 3rd party is required for delivery. The exact attribute content and format for the DTM files will be determined by VGIN prior to final delivery. Deliverables from aerial triangulation shall include at a minimum but not be limited to the following:
 - i. Raw measured fiducial coordinates for each photo image in the photo coordinate system
 - ii. Raw measured control points and pass points in the photo coordinate system
 - iii. Adjusted control points, pass points, photo centers and residuals in the NAD83/93 SPCS coordinate system with NAVD88 elevations
 - iv. Standard deviation of the adjusted control point and pass point measurements
 - v. Photo orientation parameters (X, Y, Z, omega, phi, kappa) for each photo image
 - vi. Camera focal length used in adjustment and Calibration Report.
 4. **DTM:** All information related to the DTM used for ortho rectification required to facilitate the efficient use of the imagery for additional data development by a 3rd party is required for delivery. The exact attribute content and format for the DTM files will be determined by VGIN prior to final delivery. Deliverables shall include at a minimum but not limited to the following:
 - a. Digital files of the data that comprised the DTMs used for ortho-rectification
 - b. One DTM Data file for each DO tile
 - c. Separate files for mass points and breaklines (if used).

5. Digital Orthoimagery

a. **Tile Configuration:** Scale Nested Tiles

- i. 2 foot resolution 10,000' x 10,000'
- ii. 1 foot resolution 5,000' x 5,000'
- iii. 6 inch resolution 2,500' x 2,500'

Tiles shall be aligned with the Virginia State Plane Coordinate System grid, using either the North or South zone depending on the county in the area of coverage by each orthoimage. Each 10,000 ft x 10,000 ft tile shall contain four nested 5,000 ft x 5,000 ft tiles (if required) and each 5,000 ft x 5,000 ft tile shall contain four nested 2,500 ft x 2,500 ft tiles (if required). The grid tiles to be used were developed using the Virginia State Plane Coordinate System, NAD83, using the origin point for the Virginia State Plane Coordinate system (0,0).

b. **Content:** Neat line to tile grid.

c. **Orientation:** Virginia State Plane Grid North and South.

d. **Format:** Each final digital orthoimage tile shall be delivered in a GeoTIFF File Format and a MrSID compressed format, with one file for each neat tile. The exact compression parameters will be decided by VGIN based on file size and image quality prior to delivery of the final product.

e. **Media:** VGIN will require the following deliverable products and media: Media Deliverables

#	File Content	Media
1	Statewide Coverage of Digital Ortho Imagery (GeoTIFF), Digital Terrain Models, and all Ancillary Data*.	DVD
1	Statewide Coverage of Digital Ortho Imagery (GeoTIFF), Digital Terrain Models, and all Ancillary Data*.	DLT
1	Statewide Coverage of Digital Ortho Imagery by Tile (GeoTIFF)	DVD
1	Statewide Coverage of Digital Ortho Imagery Compressed in MrSID format at 18/1 by Tile	DVD
1	Statewide Coverage of Digital Terrain Models by Tile	DVD
1 set	134 Individual County Coverages* of Digital Ortho Imagery by Tile (GeoTIFF)	DVD
1 set	134 Individual County Coverages of Digital Terrain Models by Tile	DVD
1 set	134 Individual County Coverages of all Ancillary Data**	DVD

*134 individual sets of media, each set containing complete deliverable covering one each of Virginia's 134 counties or cities, [one media set for each of Virginia's cities and counties] buffered by one image tile.

** All data products produced in the digital ortho development process required to facilitate the efficient development of planimetric or contour features by a 3rd party contractor at a later date.

6. **Metadata:** The contractor shall provide metadata compiled to the current standard endorsed by the Federal Geographic Data Committee (FGDC) for each of the data deliverables. Currently, this is the content Standard for digital geospatial metadata Version 2 – FGDC-STD-001-1998.

Metadata should be provided in ASCII format capable of being parsed by the “mp” metadata parser available from the Federal Geographic Data Committee (FGDC).

7. **Digital tile index:** To be delivered as an ESRI ArcView 3.2 Shape file with the following minimum attribution:
 - a) file name
 - b) Time Imagery Collected Eastern Standard Time
 - c) date of imagery
 - d) x-y coordinates in lower left hand corner of the tile
 - e) corresponding DTM data file name
 - f) corresponding orientation parameters or file name
 - g) corresponding raw image file names.

Additional attributes may be required which will be determined jointly between VGIN and the contractor.

8. **Project Procedures Guide:** The contractor shall prepare a **Project Procedures Guide** detailing production processes and Quality Assurance and Quality Control (QA/QC) procedures employed to insure that all products meet the required accuracy and performance standards of these specifications.

C. **Utilization of Small Businesses and Businesses Owned by Women and Minorities:** The following reports shall be submitted to the address listed on Page 1 of this RFP, Attention: Tim Moore.

1. **Periodic Progress Reports/Invoices:** For contracts requiring the submission of periodic contract performance progress reports or program status reports, the contractors will include a section on involvement of small businesses and businesses owned by women and minorities. The section will specify the actual dollars contracted to be spent to date with such businesses, actual dollars

expended to date with such businesses, and the total dollars planned to be contracted with such businesses on this contract. This information shall be provided separately for small businesses, women-owned businesses and minority-owned business.

If the contract does not require the submission of periodic progress reports, the contractors will provide the above required information on actual involvement of small businesses and businesses owned by women and minorities as part of their periodic invoices.

2. **Final Actual Involvement Report.** The contractors will submit, prior to completion or at completion of the contract and prior to final payment, a report on the actual dollars spent with small businesses and businesses owned by women and minorities during the performance of this contract. At a minimum, this report shall include for each firm contracted with and for each such business class (i.e., small, minority-owned, women-owned) a comparison of the total actual dollars spent on this contract with the planned involvement of the firm and business class as specified in the proposal, and the actual percent of the total estimated contract value. A suggested format is as follows:

Business Class: (Small, Women-Owned or Minority-Owned)

<u>FIRM NAME, ADDRESS AND PHONE NUMBER</u>	<u>TYPE GOODS/ SERVICES</u>	<u>ACTUAL DOLLARS</u>	<u>PLANNED DOLLARS</u>	<u>% OF TOTAL CONTRACT</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<u>TOTALS FOR BUSINESS CLASS</u>		_____	_____	_____ %

VI. MANDATORY PREPROPOSAL CONFERENCE:

A mandatory preproposal conference will be at 10:00 AM on November 27, 2001 in the Executive Conference Room located on the 3rd floor of the Richmond Plaza Building, 110 South 7th Street, Richmond, Virginia 23219. Attendees will be required to enter by the 7th Street Lobby. The purpose of this conference is to allow potential offerors an opportunity to present questions and obtain clarification relative to any facet of this solicitation.

Due to the importance of all offerors having a clear understanding of the specifications/scope of work and requirements of this solicitation, attendance at this conference will be a prerequisite for submitting a proposal. Proposals will only be accepted from those offerors who are represented at this preproposal conference. Attendance at the conference will be evidenced by the

representative's signature on the attendance roster. No one will be admitted after 10:15 AM.

Bring a copy of the solicitation with you. Any changes resulting from this conference will be issued in a written addendum to the solicitation.

VII. GENERAL TERMS AND CONDITIONS

- A. **VENDORS MANUAL:** This solicitation is subject to the provisions of the Commonwealth of Virginia *Vendors Manual* and any revisions thereto, which are hereby incorporated into this contract in their entirety. A copy of the manual is normally available for review at the purchasing office and in addition a copy can be obtained by calling the Division of Purchases and Supply (804) 786-3842.
- B. **APPLICABLE LAWS AND COURTS:** This solicitation and any resulting contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The contractor shall comply with all applicable federal, state and local laws, rules and regulations.
- C. **ANTI-DISCRIMINATION:** By submitting their proposals, offerors certify to the Commonwealth that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and §11-51 of the *Virginia Public Procurement Act*. If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (*Code of Virginia*, § 11-35.1E).

In every contract over \$10,000 the provisions in 1. and 2. below apply:

1. During the performance of this contract, the contractor agrees as follows:
 - a. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places,

available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

- b. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.
 - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.
- 2. The contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
- D. **ETHICS IN PUBLIC CONTRACTING:** By submitting their proposals, offerors certify that their proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer or subcontractor in connection with their proposal, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.
- E. **IMMIGRATION REFORM AND CONTROL ACT OF 1986:** By submitting their proposals, offerors certify that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.
- F. **DEBARMENT STATUS:** By submitting their proposals, offerors certify that they are not currently debarred by the Commonwealth of Virginia from submitting bids or proposals on contracts for the type of goods and/or services covered by this solicitation, nor are they an agent of any person or entity that is currently so debarred.
- G. **ANTITRUST:** By entering into a contract, the contractor conveys, sells, assigns, and transfers to the Commonwealth of Virginia all rights, title and interest in and to all causes of action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the Commonwealth of Virginia under said contract.
- H. **MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS FOR RFPs**

Failure to submit a proposal on the official state form provided for that purpose may be a cause for rejection of the proposal. Modification of or additions to the General

Terms and Conditions of the solicitation may be cause for rejection of the proposal; however, the Commonwealth reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject such a proposal.

- I. **CLARIFICATION OF TERMS:** If any prospective offeror has questions about the specifications or other solicitation documents, the prospective offeror should contact the buyer whose name appears on the face of the solicitation no later than five working days before the due date. Any revisions to the solicitation will be made only by addendum issued by the buyer.

J. **PAYMENT:**

1. **To Prime Contractor:**

- a. Invoices for items ordered, delivered and accepted shall be submitted by the contractor directly to the payment address shown on the purchase order/contract. All invoices shall show the state contract number and/or purchase order number; social security number (for individual contractors) or the federal employer identification number (for proprietorships, partnerships, and corporations).
- b. Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days, however.
- c. All goods or services provided under this contract or purchase order, that are to be paid for with public funds, shall be billed by the contractor at the contract price, regardless of which public agency is being billed.
- d. The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act.
- e. **Unreasonable Charges.** Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges which appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, the Commonwealth shall promptly notify the contractor, in writing, as to those charges which it considers unreasonable and the basis for the determination. A contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification. The provisions of this section do not relieve an agency of its prompt payment obligations with

respect to those charges which are not in dispute (*Code of Virginia*, § 11-69).

2. To Subcontractors:

- a. A contractor awarded a contract under this solicitation is hereby obligated:
 - (1) To pay the subcontractor(s) within seven (7) days of the contractor's receipt of payment from the Commonwealth for the proportionate share of the payment received for work performed by the subcontractor(s) under the contract; or
 - (2) To notify the agency and the subcontractor(s), in writing, of the contractor's intention to withhold payment and the reason.
- b. The contractor is obligated to pay the subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the contractor that remain unpaid seven (7) days following receipt of payment from the Commonwealth, except for amounts withheld as stated in (2) above. The date of mailing of any payment by U. S. Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier contractor performing under the primary contract. A contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of the Commonwealth.

- K. **PRECEDENCE OF TERMS:** Paragraphs A-J of these General Terms and Conditions shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions in this solicitation, the Special Terms and Conditions shall apply.
- L. **QUALIFICATIONS OF OFFERORS:** The Commonwealth may make such reasonable investigations as deemed proper and necessary to determine the ability of the offeror to perform the services/furnish the goods and the offeror shall furnish to the Commonwealth all such information and data for this purpose as may be requested. The Commonwealth reserves the right to inspect offeror's physical facilities prior to award to satisfy questions regarding the offeror's capabilities. The Commonwealth further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such offeror fails to satisfy the Commonwealth that such offeror is properly qualified to carry out the obligations of the contract and to provide the services and/or furnish the goods contemplated therein.
- M. **TESTING AND INSPECTION:** The Commonwealth reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications.

N. **ASSIGNMENT OF CONTRACT:** A contract shall not be assignable by the contractor in whole or in part without the written consent of the Commonwealth.

O. **CHANGES TO THE CONTRACT:** Changes can be made to the contract in any of the following ways:

1. The parties may agree in writing to modify the scope of the contract. An increase or decrease in the price of the contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the contract.
2. The Purchasing Agency may order changes within the general scope of the contract at any time by written notice to the contractor. Changes within the scope of the contract include, but are not limited to, things such as services to be performed, the method of packing or shipment, and the place of delivery or installation. The contractor shall comply with the notice upon receipt. The contractor shall be compensated for any additional costs incurred as the result of such order and shall give the Purchasing Agency a credit for any savings. Said compensation shall be determined by one of the following methods:
 - a. By mutual agreement between the parties in writing; or
 - b. By agreeing upon a unit price or using a unit price set forth in the contract, if the work to be done can be expressed in units, and the contractor accounts for the number of units of work performed, subject to the Purchasing Agency's right to audit the contractor's records and/or to determine the correct number of units independently; or
 - c. By ordering the contractor to proceed with the work and keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The contractor shall present the Purchasing Agency with all vouchers and records of expenses incurred and savings realized. The Purchasing Agency shall have the right to audit the records of the contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to the Purchasing Agency within thirty (30) days from the date of receipt of the written order from the Purchasing Agency. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes Clause of this contract or, if there is none, in accordance with the disputes provisions of the Commonwealth of Virginia *Vendors Manual*. Neither the existence of a claim nor a dispute resolution process, litigation or any other provision of this contract shall excuse the contractor from promptly complying with

the changes ordered by the Purchasing Agency or with the performance of the contract generally.

- P. **DEFAULT:** In case of failure to deliver goods or services in accordance with the contract terms and conditions, the Commonwealth, after due oral or written notice, may procure them from other sources and hold the contractor responsible for any resulting additional purchase and administrative costs. This remedy shall be in addition to any other remedies which the Commonwealth may have.
- Q. **INSURANCE:** By signing and submitting a bid or proposal under this solicitation, the bidder or offeror certifies that if awarded the contract, it will have the following insurance coverages at the time the contract is awarded. For construction contracts, if any subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with §§ 11-46.3 and 65.2-800 et seq. of the *Code of Virginia*. The bidder or offeror further certifies that the contractor and any subcontractors will maintain these insurance coverages during the entire term of the contract and that all insurance coverages will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

INSURANCE COVERAGES AND LIMITS REQUIRED:

1. Worker's Compensation - Statutory requirements and benefits.
 2. Employers Liability - \$100,000.
 3. Commercial General Liability - \$1,000,000 combined single limit. Commercial General Liability is to include Premises/Operations Liability, Products and Completed Operations Coverage, and Independent Contractor's Liability or Owner's and Contractor's Protective Liability. The Commonwealth of Virginia must be named as an additional insured when requiring a Contractor to obtain Commercial General Liability coverage.
- R. **ANNOUNCEMENT OF AWARD:** Upon the award or the announcement of the decision to award a contract as a result of this solicitation, the purchasing agency will publicly post such notice in the Procurement Notice Book which is located at the Receptionist Desk on the Third Floor, 110 South 7th Street, Richmond, Virginia.
- S. **DRUG-FREE WORKPLACE:** During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the

provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, “*drug-free workplace*” means a site for the performance of work done in connection with a specific contract awarded to a contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

- T. **NONDISCRIMINATION OF CONTRACTORS:** A bidder, offeror, or contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, national origin, age, or disability or against faith-based organizations. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

VIII. SPECIAL TERMS AND CONDITIONS:

- A. **ADVERTISING:** In the event a contract is awarded for supplies, equipment, or services resulting from this proposal, no indication of such sales or services to the Department of Technology Planning or the Department of Information Technology will be used in product literature or advertising. The contractor shall not state in any of its advertising or product literature that the Commonwealth of Virginia or any agency or institution of the Commonwealth has purchased or uses its products or services.
- B. **IDENTIFICATION OF PROPOSAL ENVELOPE:** If a special envelope is not furnished, or if return in the special envelope is not possible, the signed proposal should be returned in a separate envelope or package, sealed and identified as follows:

From: _____	_____	_____
Name of Offeror	Due Date	Time
_____	_____	_____
Street or Box Number	RFP No.	
_____	_____	_____
City, State, Zip Code	RFP Title	
_____	_____	_____
Name of Purchase Officer		

The envelope should be addressed as directed on Page 1 of the solicitation.

If a proposal not contained in the special envelope is mailed, the bidder or offeror takes the risk that the envelope, even if marked as described above, may be inadvertently opened and the information compromised which may cause the bid or proposal to be disqualified. Proposals may be hand delivered to the designated location in the office issuing the solicitation. No other correspondence or other proposals should be placed in the envelope.

- C. **SUBCONTRACTS:** No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the contractor desires to subcontract some part of the work specified herein, the contractor shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.
- D. **CONFIDENTIALITY (Commonwealth):** The Commonwealth agrees that neither it nor its employees, representatives, or agents shall knowingly divulge any proprietary information with respect to the operation of the software, the technology embodied therein, or any other trade secret or proprietary information related thereto, except as specifically authorized by the contractor in writing or as required by the Freedom of Information Act or similar law. It shall be the contractor's responsibility to fully comply with § 11-52 D of the *Code of Virginia*. All trade secrets or proprietary information must be identified in writing or other tangible form and conspicuously labeled as "proprietary" either prior to or at the time of submission to the Commonwealth.
- E. **CONFIDENTIALITY (Contractor):** The contractor assures that information and data obtained as to personal facts and circumstances related to patients or clients will be collected and held confidential, during and following the term of this agreement, and will not be divulged without the individual's and the agency's written consent. Any information to be disclosed, except to the agency, must be in summary, statistical, or other form which does not identify particular individuals. Contractors and their employees working on this project will be required to sign the Confidentiality statement in this solicitation.
- F. **LIQUIDATED DAMAGES, GOODS AND NONPROFESSIONAL SERVICES:** Delivery of the final and accepted product is required not later than 12 months from the date the contract is signed. It is understood and agreed by the offeror that time is of the essence in the delivery of supplies, services, materials, or equipment of the character and quality specified in the proposal document. In the event these specified supplies, services, materials, or equipment are not delivered by the date specified there will be deducted, not as a penalty but as liquidated damages, the sum of \$3,000 per day for each and every

calendar day of delay beyond the time specified; except that if the delivery be delayed by any act, negligence, or default on the part of the Commonwealth, public enemy, war, embargo, fire, or explosion not caused by the negligence or intentional act of the contractor or his supplier(s), or by riot, sabotage, or labor trouble that results from a cause or causes entirely beyond the control or fault of the contractor or his supplier(s), a reasonable extension of time as the procuring public body deems appropriate may be granted. Upon receipt of a written request and justification for any extension from the contractor, the purchasing office may extend the time for performance of the contract or delivery of goods herein specified, at the purchasing office's sole discretion, for good cause shown.

G. **OWNERSHIP OF INTELLECTUAL PROPERTY:** All copyright and patent rights to all papers, reports, forms, materials, creations, or inventions created or developed in the performance of this contract shall become the sole property of the Commonwealth. On request, the contractor shall promptly provide an acknowledgment or assignment in a tangible form satisfactory to the Commonwealth to evidence the Commonwealth's sole ownership of specifically identified intellectual property created or developed in the performance of the contract.

H. **PERFORMANCE AND PAYMENT BONDS:** The successful offeror shall deliver to the purchasing office executed Commonwealth of Virginia Standard Performance in the sum of the contract amount, with the Commonwealth of Virginia as obligee. The surety shall be a surety company or companies approved by the State Corporation Commission to transact business in the Commonwealth of Virginia. No payment shall be due and payable to the contractor, even if the contract has been performed in whole or in part, until the bonds have been delivered to and approved by the purchasing office. Standard bond forms will be provided by the purchasing office prior to or at the time of award.

I. **eVA BUSINESS-TO-GOVERNMENT CONTRACTS:** The eVA Internet electronic procurement solution, web site portal www.eva.state.va.us, streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies.

Vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution and agree to comply with the following:

- a. Submit a fully executed American Management Systems, Inc., (AMS) Trading Partner Agreement, a copy of which can be accessed and downloaded from www.eva.state.va.us. AMS is the Commonwealth's service provider to implement and host the eVA e-procurement solution.

- b. Provide an electronic catalog (price list) for items awarded under a term contract. The format of this electronic catalog shall conform to the eVA Catalog Interchange Format (CIF) Specification that can be accessed and downloaded from www.eva.state.va.us.

Note: Failure to comply with the above requirements will be just cause for the Commonwealth to reject your offer or terminate this contract for default.

- X. METHOD OF PAYMENT:** Payment shall be 30 days from receipt of invoice and verification that VGIN has approved of the product.

Progress payments for the Contracted Services shall be made according to the following milestones:

25% of the contractor's average fee per Tile upon completion of the imagery collection and orientation to ground control phase of the Contract Services, as evidenced by submittal and acceptance of: (1) dates and specifications of the collected imagery; (2) the horizontal control ArcView shape files; (3) the identification of and ties to the vertical control; and (4) the Aerotriangulation Summary files, if aerotriangulation used or verification of image orientation to ground control if aerotriangulation is not used. Make sure these match the deliverables above – there is not concurrence between the two

20% of the contractor's average fee per Tile shall be paid upon completion, delivery and acceptance of products for the Digital Terrain Models (DTM) phase of the Contract Services.

The remaining 45% of the project fee shall be paid upon delivery and acceptance of all remaining Contract Services to the satisfaction of the State.

- XI. PRICING SCHEDULE:** See Attachment D.

ATTACHMENT A

PARTICIPATION IN STATE PROCUREMENT TRANSACTIONS **BY** **SMALL BUSINESS AND BUSINESSES OWNED BY WOMEN AND** **MINORITIES**

The following definitions will be used in completing the information required by one or more of the three categories of businesses contained in this Appendix as applicable to your firm: (1) Participation by Small Businesses; (2) Participation by Businesses Owned by Women; and (3) Participation by Businesses Owned by Minorities.

DEFINITIONS

Period is the specified 12-month period for which the information provided in this list is applicable and valid. The period will be specified as month and year.

Firm Name, Address and Phone Number is the name, address and business of minority-owned business with which the Offeror plans to involve in this contract, as applicable.

Contact Person is the name of the individual in the specified small business, women-owned business or minority-owned business who would have knowledge of the specified contracting and would be able to validate the information provided in this list.

Type Goods or Services is the specific goods or services the Offeror has contracted for from the specified small, women-owned or minority-owned business over the specified period of time or plans to use in the performance of this contractor, as applicable. The Offeror will asterisk (*) those goods and services that are in the Offeror's primary business or industry.

Dollar Amount is the total dollar amount (in thousands of dollars) the Offeror has contracted for or has done business with the listed firm during the specified period or plans to use on this contract, as applicable.

%Total Company Expenditures for Goods and Services is calculated by dividing the dollar amount of business conducted or contracted for with the indicated firm over the specified period by the total expenditure of the Offeror over the specified period for goods and services.

% of Total Contract is calculated by dividing the estimated dollars planned for the indicated firm on this contract by the total Offeror estimated price of this contract.

PARTICIPATION BY SMALL BUSINESS

- A. Offeror certifies that it () is, () is not, a small business concern. For the purpose of this procurement, a small business is a concern, including its affiliates, which is independently owned and operated, but is not dominant in the field of operation in which it is contracting and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria, as prescribed by the United States Small Business Administration.
- B. List Small businesses with which the Offeror has contracted or done business and dollar amounts spent with each of these businesses in the most recent 12 -month period for which data are available. Offerors are encouraged to provide additional information and expand upon the following format:

PERIOD: From: _____ To: _____

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Co. Expenditures for Goods & Services

PARTICIPATION BY SMALL BUSINESS

(Continued)

- C. Describe Offeror's plans to involve small businesses in the performance of this contract either as part of a joint venture, as a partnership, as subcontractors or as suppliers. Offerors are encouraged to provide additional information and expand upon the following format:

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Contract

PARTICIPATION BY BUSINESSES OWNED BY WOMEN

- A. Offeror certifies that is () is, () is not, a women's business enterprise or women-owned business. For the purpose of this procurement, a women-owned business is a concern that is at least 51 percent owned by a woman or women who also control and operate it. In this context, "control" means exercising the power to make policy decisions, and "operate" means being actively involved in the day-to-day management.
- B. List businesses owned by women with which the Offeror has contracted or done business and dollar amounts spent with each of these businesses in the most recent 12-month period for which data are available. Offerors are encouraged to provide additional information and expand upon the following format:

PERIOD: From: _____ To: _____

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Co. Expenditures for Goods & Services

PARTICIPATION BY BUSINESSES OWNED BY WOMEN

(Continued)

- C. Describe Offeror's plans to involve businesses owned by women in the performance of this contract either as part of a joint venture, as a partnership, as subcontractors or as suppliers. Offerors are encouraged to provide additional information and expand upon the following format:

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Contract

PARTICIPATION BY BUSINESSES OWNED BY MINORITIES

- A. Offeror certifies that is () is, () is not, a minority business enterprise or minority-owned business. For the purpose of this procurement, a minority-owned business is a concern that is at least 51 percent owned and controlled by one or more socially and economically disadvantaged persons. Such disadvantage may arise from cultural, racial, chronic economic circumstances or background, or other similar cases. Such persons include, but are not limited to, Blacks, Hispanic Americans, Asian Americans, American Indians, Eskimos and Aleuts.
- B. List businesses owned by minorities with which the Offeror has contracted or done business and dollar amounts spent with each of these businesses in the most recent 12-month period for which data are available. Offerors are encouraged to provide additional information and expand upon the following format:

PERIOD: From: _____ To: _____

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Co. Expenditures for Goods & Services

PARTICIPATION BY BUSINESSES OWNED BY MINORITIES

(Continued)

- C. Describe Offeror's plans to involve businesses owned by minorities in the performance of this contract either as part of a joint venture, as a partnership, as subcontractors or as suppliers. Offerors are encouraged to provide additional information and expand upon the following format:

Firm Name, Address & Phone No.	Contact Person	Type Goods/ Services	Dollar Amounts	% Total Contract

ATTACHMENT B OFFEROR DATA SHEET

Offeror's Operating Organization:

Provide an overview of the operating structure and geographical locations of the firm at the national, regional, and local levels.

Company Contact:

Provide the name, title, street address, city, state, zip code, and telephone number of the primary contact person.

Corporate Identity:

- a. Provide the identity of any parent corporation.
- b. Provide the identity of any subsidiaries if appropriate.

Corporate Financial Status:

- a. For publicly held companies, Offerors must provide a copy of their firm's (information systems division or corporation only, if consolidated statements are published) audited financial statements from the most recent fiscal year, and the preceding two fiscal years; must provide their Dun and Bradstreet credit rating number, and must provide their Moody's Investment Service Bond Rating and/or Standard & Poors Bond Rating if they have publicly held debt.
- b. For privately held companies, Offerors must provide a copy of audited financial statements for the most recent and two preceding fiscal years or other indicator(s) of financial stability.

Offeror Qualifications:

- a. Company name, pre-award and post-award contact persons, address, telephone number, facsimile number, e-mail addresses, Federal Identification Number and firm's web site, if applicable.
- b. List of corporate officers, years in business, including a list of all corporate names the firm has used to conduct this type of business (include the dates and states of incorporation for each corporate name).
- c. Those Offerors unable to provide three years of annual revenues shall provide verifiable evidence of as many years (or partial years) annual revenues as do exist along with a current audited financial statement.

References:

The Offeror shall provide at least three (3) current references that can confirm the firm's qualifications. References provided should be for similar work as being proposed for this RFP. The Commonwealth will make such reasonable investigations as deemed proper and necessary to determine the ability of the Offerors to perform the contracts, and these may include, but may not be limited to, reference checks and interviews.

ATTACHEMENT C SCHEDULE OF EVENTS

The following Draft Schedule of Events represents the VGIN's best estimate of the schedule that shall be followed for the procurement and development of the digital orthoimagery for the Virginia Base Mapping Program.

	EVENT	DATE
1.	RFP Issued	11/16/2001
2.	Pre-proposal Conference	11/27/2001
3.	Deadline for Submission of Written Questions	11/28/2001
4.	Responses to Written Comments Issued	11/29/2001
5.	Deadline for Submitting a Proposal.	12/10/2001
6.	Proposal Interviews	12/18 thru 20, 2001
7.	Anticipated Contract Start Date	1/25/2002
8.	Project Initiation Meeting	1/30/2002
9.	Post-Flying Evaluation Meeting	5/01/2002
10.	Completion of final processing/ Delivery of final product	2/01/2003

ATTACHMENT D

1. TOTAL PROJECT COST and Deliverables

The Tile costs identified on the Tile Cost Sheet and included in calculations on the Total Cost Calculation sheet should include all costs associated with the development of digital ortho imagery for this project as well as the reproduction and delivery of the required project deliverables on the media indicated in Table 1.

Table 1. - Media Deliverables

1	Statewide Coverage of Digital Ortho Imagery (GeoTIFF), Digital Terrain Models, and all Ancillary Data*.	DVD
1	Statewide Coverage of Digital Ortho Imagery (GeoTIFF), Digital Terrain Models, and all Ancillary Data*.	DLT
1	Statewide Coverage of Digital Ortho Imagery by Tile (GeoTIFF)	DVD
1	Statewide Coverage of Digital Ortho Imagery Compressed in MrSID format at 18/1 by Tile	DVD
1	Statewide Coverage of Digital Terrain Models by Tile	DVD
1 set	134 Individual County Coverages of Digital Ortho Imagery by Tile (GeoTIFF)	DVD
1 set	134 Individual County Coverages of Digital Terrain Models by Tile	DVD
1 set	134 Individual County Coverages of all Ancillary Data*	DVD

* Ancillary data includes a set of the data products including but not limited to:

raw digital imagery files

DAT solution and set-up and orientation information for the stereo models

ground control

flight lines

control plans

photo indexes

sensor information

flight plan

control report

Aerial Triangulation report

2. Tile Cost Sheet

Cost per tile – 2 foot resolution (2 GSD)

	Tile Range - Number of tiles per price/cost*	Cost per 10,000' x 10,000' tile
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$

Cost per tile – 1 foot resolution (1 GSD)

	Tile Range - Number of tiles per price/cost*	Cost per 5,000' x 5,000' tile
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$

Cost per tile – 6 inch resolution (0.5 GSD)

	Tile Range - Number of tiles per price/cost*	Cost per 2,500' x 2,500' tile
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$

* Offerors must list the range of tiles (by number) to which the costs in each row apply (e.g. 1-500, 500-5000, 5000 or greater).

3. TOTAL COST CALCULATION SHEET

I. 2 foot resolution (1:4800)

	Column A.	Column B.	Column C.	Column D.
	Applicable Tile Range (from Offeror Cost Sheet)	Projected Tile Totals per range.	Applicable cost per tile (from Offeror Cost Sheet)	Tile Total multiplied by Cost per Tile (Column B x Column C)
1.			\$	\$
2.			\$	\$
3.			\$	\$
4.			\$	\$
Total Tiles*				
			5. Total 2 foot Cost (Sum of Column D)	\$

*Total Tiles should equal the Tile total estimate for 2' resolution tiles provided by VGIN (Extent and distribution of imagery, pg. 5.)

II. 1 foot resolution (1:2400)

	Column A.	Column B.	Column C.	Column D.
	Applicable Tile Range (from Offeror Cost Sheet)	Projected Tile Totals per range.	Applicable cost per tile (from Offeror Cost Sheet)	Tile Total multiplied by Cost per Tile (Column B x Column C)
1.			\$	\$
2.			\$	\$
3.			\$	\$
4.			\$	\$
Total Tiles*				
			5. Total 1 foot Cost (Sum of Column D)	\$

*Total Tiles should equal the Tile total estimate for 1' resolution provided by VGIN (Extent and distribution of imagery, pg. 5.)

III. 0.5 foot (6 inch) resolution (1:1200)

	Column A.	Column B.	Column C.	Column D.
	. Applicable Tile Range (from Offeror Cost Sheet)	Projected Tile Totals per range.	Applicable cost per tile (from Offeror Cost Sheet)	Tile Total multiplied by Cost per Tile (Column B x Column C)
1.			\$	\$
2.			\$	\$
3.			\$	\$
4.			\$	\$
Total Tiles*				
5. Total 0.5 foot Cost (Sum of Column D)			\$	

*Total Tiles should equal the Tile total estimate for 0.5' resolution provided by VGIN (Extent and distribution of imagery, pg. 5.)

TOTAL Project COST Calculation

I.5.D.	Total Cost – 2 foot resolution	\$
II.5.D.	TOTAL COST – 1 foot resolution	\$
III.5.D.	Total Cost – 0.5 foot resolution	\$

TOTAL Project COST

\$

4. Media Delivery Options – Reproduction Cost Sheet

Reproduction costs for purchases of data in addition to the deliverable data and media required for the project.

Media Delivery Options - Digital Orthophotography

Digital Orthos - Statewide Coverage by Tile – (GeoTIFF format)

	CDs	DVDs*	DLT**
1 set	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range?	\$	\$	\$

* specify single or double sided

** specify type and capacity

Digital Orthos Statewide Coverage – (Compressed by tile, in MrSID format, 18/1 ratio)

	CDs	DVDs*	DLT**
1 set	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range?	\$	\$	\$

* specify single or double sided

** specify type and capacity

Digital Orthos- 134 Individual County/City Coverages (one per county) (GeoTIFF)

	CDs	DVDs*	DLT**
1 set (134 county/city set)	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range	\$	\$	\$

* specify single or double sided

** specify type and capacity

Media Delivery Options – Digital Terrain Model

Digital Terrain Model (DTM) by Tile – Statewide Coverage

	CDs	DVDs*	DLT**
1 set	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range?	\$	\$	\$

* specify single or double sided

** specify type and capacity

Media Delivery Options – Digital Terrain Model (continued)

Digital Terrain Model - 134 Individual County/City Coverages (one per county)

	CDs	DVDs*	DLT**
1 set (134 county/city set)	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range	\$	\$	\$

* specify single or double sided

** specify type and capacity

Media Delivery Options – Ancillary Data

Ancillary data (includes all base data products required for the development of the digital orthoimagery to facilitate the efficient use of the imagery for 3rd party data development. This shall include but not be limited to the items discussed in Section 3: Scope of work, B. Performance Criteria, 9. Data Deliverables: a thru d.)

Ancillary data - Statewide Coverage

	CDs	DVDs*	DLT**
1 set	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range?	\$	\$	\$

* specify single or double sided

** specify type and capacity

Ancillary data - 134 Individual County/City Coverages (one per county)

	CDs	DVDs*	DLT**
1 set (134 county/city set)	\$	\$	\$
Additional sets or range	\$	\$	\$
Additional range	\$	\$	\$

* specify single or double sided

** specify type and capacity